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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/668,398	09/22/2000	Alan V. McCree	TI-29490	2360

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EXAMINER

NOLAN, DANIEL A

ART UNIT PAPER NUMBER

2655

DATE MAILED: 12/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/668,398

Applicant(s)

MCCREE, ALAN V. 

Examiner

Daniel A. Nolan

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_. 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

(Note that as of October 1, 2002 a new **Art Unit 2655** was established that includes this application, and that this new AU number should be used in all future correspondence.)

### ***Information Disclosure Statement***

1. The listing of references in the specification (pages 1-3) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### ***Specification***

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification, such as:

- "Speech" is misspelled (9<sup>th</sup> line page 2).
- The terms "aperiodic" (3<sup>rd</sup> line from end, page 2), "nonperiodic" (8<sup>th</sup> line, page 3) and "non-periodic" (2<sup>nd</sup> paragraph, page 9) are used indiscriminately, where the

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definitions are the same. To avoid errors of misunderstanding, either standard terminology must be used or the differences explained.

The Examiner is proceeding with the understanding that all variations have the same meaning (*adj. – irregular: happening at irregular intervals*).

- The grammatical number is not is agreement (page 4, 1<sup>st</sup> sentence, 2<sup>nd</sup> paragraph).
- Characterizing the drawings as *heuristic* (mid-page 4) requires explanation.
- The quantization for *fpitch* is missing (“[ ]” in 2<sup>nd</sup> line from end, page 14).
- “Zero<sup>th</sup>” should be superset (5<sup>th</sup> line from end, page 18) or otherwise reformatted.
- *Left-* and *right-handed* should be hyphenated (7<sup>th</sup> & 8<sup>th</sup> line, page 29).
- Hyphens should be used (2<sup>nd</sup> paragraph, page 33), as the underscore is an editing character.

Appropriate correction is required.

3. The abstract of the disclosure is objected to because the sentences are not complete. Correction is required. See MPEP § 608.01(b).

### ***Claim Objections***

4. Claim 1 is objected to because of the following informalities:

- In claim 1, the comma should be removed from after the word “and” (2<sup>nd</sup> line).

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thyssen (U.S. Patent 6,480,822) in view of Kim et al ("On A Modified Cepstral Pitch Control Technique For The High Quality Text-To-Speech Type System", Midwest Symposium on Circuits and Systems, pages 616-619, August 1998).

7. Regarding claim 1, the low complexity random codebook of Thyssen applies to the features as follows:

- Thyssen (column 6 lines 47-48) reads on the feature of (a) *a linear prediction* (column 9 line 27), *pitch* (column 10 line 1) and *voicing analyzer* (column 12 line 46).
- Thyssen (Abstract, line 9) acknowledges the use of *waveform coding* but expresses reservations without specifying those modifications that would overcome the stated deficiencies.

Kim et al (from the 5<sup>th</sup>-line from bottom of left column of page 616, to the 3<sup>rd</sup> line of the adjacent right column) reads on the feature of *(b) a waveform coder coupled to said analyzer*, which would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Kim et al to the device/method of Thyssen so as to provide toll-quality speech based on accepted coding methods.

- Thyssen (column 9 lines 58-65) reads on the feature of having *LP coefficients updated within a sub-frame for excitation synthesis*.

### **Conclusion**

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Manjunath et al (U.S. Patent 6,456,964) provides a hybridized speech encoder with the features of the immediate application.
- Udaya-Bhaskar et al (U.S. Patent 6,418,408) describes the combined features of the immediate application as being advantageous to speech coders.

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Daniel A. Nolan at telephone (703) 305-1368 whose normal business hours are Mon, Tue, Thu & Fri, from 7 AM to 5 PM.

If attempts to contact the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To, can be reached at (703) 305-4827.

The fax phone number for Technology Center 2600 is (703) 872-9314. Label informal and draft communications as "DRAFT" or "PROPOSED", & designate formal communications as "EXPEDITED PROCEDURE".

Formal response to this action may be faxed according to the above instructions, or mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

or hand-delivered to:

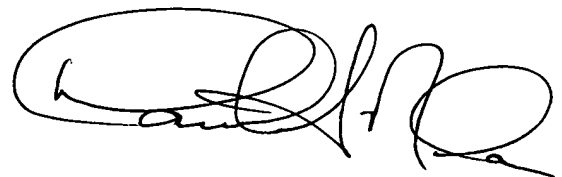
Crystal Park 2,  
2121 Crystal Drive, Arlington, VA,  
Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Technology Center 2600 Customer Service Office at telephone number (703) 306-0377.

Daniel A. Nolan  
Examiner  
Art Unit 2654

dan

December 7, 2002

A handwritten signature in black ink, appearing to read 'Daniel A. Nolan', with a large, stylized initial 'D' and 'N'.

DANIEL NOLAN  
PATENT EXAMINER